Naval Safety Center
LESSONS LEARNED
LL 21-14

# ELECTRIC SCOOTERS III (REVENGE OF THE CRACKS)

It's time for another lessons learned about the ever-popular e-scooter. The first LL we wrote on this subject was just a warning when rental e-scooters started popping up en masse in some cities, and we recognized the potential hazard they posed. The second was a response to several mishaps that proved our warning wasn't heeded and our fears were confirmed.

With growing numbers of e-scooter mishaps showing up in RMI, it's apparently time for round three. Fortunately, there were relatively few Navy and Marine Corps e-scooter mishaps in 2020, but the stats may be artificially deflated due to pandemic-reduced scooter use. Now, with some cities opening up and warm weather drawing people outside, the allure of these seemingly simple to use and — *dare we say* — seemingly fun devices will certainly tempt some of our naval folks to take a spin. Here are some recent examples of people who learned these e-scooters might not be so simple, and certainly did not have a fun time.

• Nothing good happens after midnight. (*That statement is especially true if you are impaired and on an e-scooter*). At around 0030, a service member was, according to the report, "operating a motorized scooter while under the influence of alcohol." While trying to maneuver onto the sidewalk from the street, he ran into the curb. Evidently, he had some speed going, because the report says he was "launched" from the scooter, and "his face and arm impacted the sidewalk." His unwanted prizes included: a broken left hand, severe road rash to his face and arms, 14 days convalescent leave, and 30 days light duty. — *We've said it before, and (with a sigh) we'll say it again: Don't drink and scooter. Please.*

• "So, there I was … in the middle of the half-pipe..." This incident would sound much cooler if the rider had been doing a ridiculously awesome stunt, but instead, he just fell off the e-scooter in a ridiculous way. While riding into a parking lot, a scooting Sailor somehow managed to clip the back tire on a curb while the front tire was still on the pavement (*seriously, how is that possible? Was he drifting on a scooter?*). The curb-clip caused him to lose control, so he tried to jump off the scooter (*okay, maybe a good idea ... the ship is going down, abandon ship*). But, even as he bailed out, he tried to maintain control of the handlebars (*…um, why?*). The rear end of the scooter then spun around, striking the inside of his ankle, causing him to roll and injure it. — *The second-best mitigation we can offer is: Either eject or don't. Halfway is worse. Our best mitigation, though, is: Skip the scooter and just walk.*

• Arachnophobia. This one is short, but it's too good to pass up. A service member was riding an e-scooter when a bug viciously attacked her - and by "attacked," we mean a bug landed on her face (*apparently nature disdains these scooters too*). While trying to get the bug off her face (*we imagine through a fair amount of flailing*), she lost control of the scooter and fell. — *Rental scooters can go up to 20 mph in some cities. Privately owned versions can go even faster. When riding, please STOP before dealing with any distractions. Road rash, bruises, and broken bones are worse than a bug bite (and the bug might've just been harmless).*

• It aint' the Grand Canyon. We are seeing many e-scooter mishaps caused by their small wheels' inability to negotiate disturbances in the roadway like cracks or ruts, or even small potholes. There are numerous one-line reports that all read almost the same: "Member hit a crack in the cement causing the member to fall;" "Member was riding an electric scooter and hit a pothole, fell off…;" "The scooter's front wheel became caught, and the scooter flipped." — *E-scooters are the antithesis of all-terrain vehicles. Please, please, (PLEASE) pay attention to the path or road. Scooters face many more obstacles than most other modes of transportation.*

• "I am an Experienced Scooter-er." (*No, that's not a real word, but just "roll" with it*). This incident struck our attention because of how emphatically the report's author cites the driver's experience with e-scooters. The report reads, "The Sailor is very familiar with this type of electric scooter. The Sailor has previous experience operating these types of scooters, renting them on multiple occurrences in multiple cities. Additionally, the Sailor has rented a scooter previously in this city." (*Okay. Point made. But despite his depth of scooter experience, it still didn't stop him from wiping out*). This "well-experienced" Sailor was riding an e-scooter to his hotel, but he apparently had not read our advice from the previous issue about not riding on the sidewalk, because that was his roadway-of-choice this evening. When he came to an intersection, he rode down the ramp to cross the road, but at the other side of the street, he misjudged the position of the next sidewalk ramp and impacted the flat face of the curb (*those curbs really can just jump up at you. Too bad all that experience didn't help him see it).* The Sailor was launched over the handlebars, landing on his face. — *On a serious note, the Sailor received multiple lacerations and facial fractures. Mishaps like this are why we recommend (and plead!) that, no matter what your experience level is, be careful and obey the issued guidelines for e-scooter use. Or, even better ... bike, walk, or get a ride-share.*

**Key Takeaways**

E-scooters have been around for a while, but they weren't widely used until the idea for app-based rentals gained traction. Since their everyday use is so new, we're still learning what the biggest concerns are. A 2020 Air Force study provided valuable information, though. They cite several concerns which all riders should be aware of, and our mishaps support their conclusions.

**1. Stay alert.** E-Scooters have no turn signals, and the throttle on the handlebar prevents the use of hand signals. Riders need to be much more aware of other vehicles and people, because those vehicles and people don't know what the rider on the scooter is planning to do.

**2. Day only, please.** Lights on e-scooters are at a low height, making them less visible. Please pay attention to other vehicles; they can't see your scooter well or what you are doing. In some cities, riding them at night is prohibited (so know your local laws).

**3. Wear a helmet.** The standing position is unstable and causes riders to be thrown forward with more force when in a crash, which leads to much higher rates of head injury.

**4. Tiny wheels; Big crashes.** The small wheels can't negotiate cracks and bumps found in many streets and sidewalks. The Air Force report cites this as the leading cause of their mishaps, and this seems to go along with a lot of our own Navy and Marine Corps incidents.

**5. Don't drink and scooter.** E-scooters pose their own hazards, don't add to them with alcohol.

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